

Remarks

The Applicants acknowledge the Examiner's withdrawal of Claims 1-12 from consideration. As a result, the Applicants have canceled Claims 1-12, but reserve the right to file one or more divisional applications drawn to the subject matter of these Claims. Claims 13-16, 18-20, 22-23 and 25 remain under consideration.

The Applicants acknowledge the Examiner's grant of priority for Claims 22, 23 and 25 to September 1, 1998, based on U.S. 6,309,855 (U.S. '855). However, the Applicants respectfully submit that Mr. Fink has been added as a named inventor and, as a result, the review of priority in the instant case is moot.

In particular, the Applicants are concurrently correcting inventorship pursuant to 37 C.F.R. §1.48(a) under a separate submission. For the Examiner's convenience, the Applicants submit a convenience copy of the Petition to Correct Inventorship pursuant to 37 C.F.R. §1.48(a).

Claim Rejections Under 35 U.S.C. §112, Second Paragraph

In view of the Examiner's helpful comments, the Applicants have corrected minor informalities in Claim 19. Further, the Applicants have amended Claims 19 and 20 to remove parenthesis around the sequence identifiers and provide the Claims with proper antecedent basis. The Applicants respectfully request withdrawal of the rejections of Claims 19 and 20 under 35 U.S.C. §112, second paragraph.

Claim Rejections Under 35 U.S.C. §112, First Paragraph

Claims 18, 22 and 25 have been rejected under 35 U.S.C. §112, first paragraph.

The Applicants respectfully submit that as a result of the amendment to Claims 18 and 22, the rejection is now obviated. The Applicants have amended these claims to indicate structural and functional characteristics of TREK-1 and TASK. In particular, the Applicants have amended

these Claims to indicate that specific compounds activate TREK-1 and TASK and that both TREK-1 and TASK contain two pore domains and four transmembrane segments. Support for these amendments can be found on page 2 lines 1 - 2 and page 13 lines 12 - 13.

The Applicants respectfully submit that amended Claims 18 and 22 clearly disclose a function, selective activation, correlated to a particular structure, two pore domains and four transmembrane segments. In light of these structural and functional characteristics, one skilled in the art would readily be able to isolate and characterize members of the genus from both TREK-1 and TASK.

It is well established in the law that claims are not perforce limited to the embodiments disclosed in the specification. *Amgen Inc. v. Hoechst Marion Roussel, Inc. and Transkaryotic Therapies, Inc.*, 65 U.S.P.Q. 2d 1385, 1395 (CAFC 2003); citing e.g., *Rexnord Corp. v. Laitram Corp.*, 60 U.S.P.Q. 2d 1851, 1856 (Fed. Cir. 2001) (“an applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention.”). In fact, *Enzo Biochem*, clarified that not all functional descriptions of genetic material fail as a matter of law to meet the written description requirement; rather the requirement may be satisfied if in the knowledge of the art, the disclosed function is sufficiently correlated to a particularly known structure. See *Enzo Biochem, Inc. v. Gene-Probe, Inc.*, 63 U.S.P.Q. 2d 1609, 1613 (Fed. Cir. 2003). The Applicants respectfully submit that both TREK-1 and TASK have specific structural features, including two pore domains and four transmembrane segments. Further, Claim 18 indicates that TREK-1 is selectively activated by chloroform, diethyl ether, halothane and isoflurane, while Claim 22 denotes that TASK is selectively activated by halothane and isoflurane. Based on these teachings, one of ordinary skill in the art could readily take the

detailed information provided in the Specification and locate all of the TREK-1 and TASK proteins that exhibit the claimed structural and functional features.

In view of the foregoing, the Applicants respectfully submit that amended Claims 18 and 22 as well dependent Claim 25, comply with the written description requirement. The Applicants respectfully request withdrawal of the rejection of Claims 18, 22 and 25 under 35 U.S.C. §112, first paragraph.

Claim Rejections Under 35 U.S.C. §102(a)

Claims 13-16 and Claims 18-20 have been rejected under 35 U.S.C. §102(a) as being anticipated by Patel et al. (*Nature Neuroscience*, 1999, Vol. 2, pp. 422-426).

As previously noted, Applicants filed a Petition for the Correction of Inventorship pursuant to 37 C.F.R. §1.48(a) adding Michel Fink as a named inventor. Mr. Fink was inadvertently omitted as an inventor and his omission occurred without deceptive intent. In light of the addition of Mr. Fink as an inventor, the authors named in Patel are identical to the Inventors of the current application. Thus, the Applicants respectfully submit that Patel is not prior art under 35 U.S.C. §102(a) because Patel is no longer a reference “by another.” The Applicants invite the Examiner’s attention to the following passage of M.P.E.P. §2132, which states that:

A person shall be entitled to a patent unless –

(a) the invention was known or used **by others** in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent. (Emphasis added).

The term “others” in 35 U.S.C. 102(a) refers to any entity which is different from the inventive entity. The entity need only differ by one person to be “by others.” This holds true for all types of references eligible as prior art under 35 U.S.C. 102(a) including publications as well as public knowledge and use.

It is well established that an “Applicant’s disclosure of his or her own work within the year before the application filing date cannot be used against him or her under 35 U.S.C. §102(a).” *In*

re Katz, 687 F.2d 450, 215 USPQ 14 (CCPA 1982). A party may be added as an Inventor if the omission was inadvertent and occurred without deceptive intent. See *In re Searles*, 422 F.2d 431, 164 USPQ 623 (CCPA 1970). The Applicants have removed Patel as prior art under 35 U.S.C. §102(a) by adding one of the co-authors of Patel, Michel Fink, as an Inventor to the current application, so that the authors of Patel are now identical to the Inventors in the pending application. The Applicants respectfully submit that as a result of the correction of inventorship, Patel is no longer prior art.

In view of the foregoing, the Applicants respectfully request withdrawal of the rejection of Claims 13-16 and 18-20 as anticipated by Patel.

Claim Rejections Under 35 U.S.C. §103(a)

Claims 13-16, 18 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Franks and Lieb in view of Patel. The Applicants respectfully submit that as a result of the withdrawal of Patel as prior art, the rejection of Claims 13-16, 18 and 20 under 35 U.S.C. §103(a) is now obviated. The Applicants respectfully request withdrawal of the rejection of Claims 13-16, 18 and 20 under 35 U.S.C. §103(a) as unpatentable over Franks and Lieb in view of Patel.

In view of the foregoing, the Applicants respectfully submit that the application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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